SEQUENCE LISTING

<110> Kumagai, Yoshinari
Blacher, Russel
Yoneda, Toshiyuki

<120> "Integrin Binding Motif Containing
Peptides and Methods of Treating Skeletal Diseases"

<130> BEAR-006CIP

<140> Unassigned
<141> 2001-03-19

<150> 09/641,034
<151> 2000-08-16

<160> 50

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 97
<212> PRT
<213> peptide

<400> 1
Asp Ser Gln Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg
1 5 10 15
Ile Gln His Asn Ile Asp Tyr Leu Lys His Leu Ser Lys Val Lys Lys
20 25 30
Ile Pro Ser Asp Phe Glu Gly Ser Gly Tyr Thr Asp Leu Gln Glu Arg
35 40 45
Gly Asp Asn Asp Ile Ser Pro Phe Ser Gly Asp Gly Gln Pro Phe Lys
50 55 60
Asp Ile Pro Gly Lys Gly Glu Ala Thr Gly Pro Asp Leu Glu Gly Lys
65 70 75 80
Asp Ile Gln Thr Gly Phe Ala Gly Pro Ser Glu Ala Glu Ser Thr His
85 90 95
Leu

<210> 2
<211> 47
<212> PRT
<213> peptide

<400> 2
Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg Ile Gln His
1 5 10 15
Asn Ile Asp Tyr Leu Lys His Leu Ser Lys Val Lys Lys Ile Pro Ser
20 25 30
Asp Phe Glu Gly Ser Gly Tyr Thr Asp Leu Gln Glu Arg Gly Asp
35 40 45

<210> 3

<211> 47
<212> PRT
<213> peptide

<400> 3
Arg Gly Asp Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg
 1   5   10   15
Ile Gln His Asn Ile Asp Tyr Leu Lys His Leu Ser Lys Val Lys Lys
            20   25   30
Ile Pro Ser Asp Phe Glu Gly Ser Gly Tyr Thr Asp Leu Gln Glu
        35   40   45

<210> 4
<211> 47
<212> PRT
<213> peptide

<400> 4
Asp Ser Gln Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg
 1   5   10   15
Ile Gln His Asn Ile Asp Tyr Leu Lys His Leu Ser Lys Val Lys Lys
            20   25   30
Ile Pro Ser Asp Phe Glu Gly Ser Gly Tyr Thr Asp Arg Gly Asp
        35   40   45

<210> 5
<211> 44
<212> PRT
<213> peptide

<400> 5
Arg Gly Asp Ser Pro Val Lys Ser Lys Ser Thr His Arg Ile Gln His
 1   5   10   15
Asn Ile Asp Tyr Leu Lys His Leu Ser Lys Val Lys Lys Ile Pro Ser
            20   25   30
Asp Phe Glu Gly Ser Gly Tyr Thr Asp Leu Gln Glu
        35   40

<210> 6
<211> 44
<212> PRT
<213> peptide

<400> 6
Asp Ser Gln Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg
 1   5   10   15
Ile Gln His Asn Ile Asp Tyr Leu Lys His Leu Ser Lys Val Lys Lys
            20   25   30
Ile Pro Ser Asp Phe Glu Gly Ser Gly Arg Gly Asp
        35   40

<210> 7
<211> 37
<212> PRT
<213> peptide

<400> 7
Arg Gly Asp Thr His Arg Ile Gln His Asn Ile Asp Tyr Leu Lys His

```
 1               5                  10                  15
Leu Ser Lys Val Lys Lys Ile Pro Ser Asp Phe Glu Gly Ser Gly Tyr
            20                  25                  30
Thr Asp Leu Gln Glu
        35
```

<210> 8
<211> 41
<212> PRT
<213> peptide

<400> 8

```
Asp Ser Gln Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg
 1               5                  10                  15
Ile Gln His Asn Ile Asp Tyr Leu Lys His Leu Ser Lys Val Lys Lys
            20                  25                  30
Ile Pro Ser Asp Phe Glu Arg Gly Asp
        35                  40
```

<210> 9
<211> 27
<212> PRT
<213> peptide

<400> 9

```
Arg Gly Asp Leu Lys His Leu Ser Lys Val Lys Lys Ile Pro Ser Asp
 1               5                  10                  15
Phe Glu Gly Ser Gly Tyr Thr Asp Leu Gln Glu
            20                  25
```

<210> 10
<211> 38
<212> PRT
<213> peptide

<400> 10

```
Asp Ser Gln Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg
 1               5                  10                  15
Ile Gln His Asn Ile Asp Tyr Leu Lys His Leu Ser Lys Val Lys Lys
            20                  25                  30
Ile Pro Ser Arg Gly Asp
        35
```

<210> 11
<211> 24
<212> PRT
<213> peptide

<400> 11

```
Arg Gly Asp Leu Ser Lys Val Lys Lys Ile Pro Ser Asp Phe Glu Gly
 1               5                  10                  15
Ser Gly Tyr Thr Asp Leu Gln Glu
            20
```

<210> 12
<211> 32
<212> PRT
<213> peptide

<400> 12
Asp Ser Gln Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg
 1   5   10   15
Ile Gln His Asn Ile Asp Tyr Leu Lys His Leu Ser Lys Arg Gly Asp
            20   25   30

<210> 13
<211> 21
<212> PRT
<213> peptide

<400> 13
Arg Gly Asp Val Lys Lys Ile Pro Ser Asp Phe Glu Gly Ser Gly Tyr
 1   5   10   15
Thr Asp Leu Gln Glu
            20

<210> 14
<211> 28
<212> PRT
<213> peptide

<400> 14
Asp Ser Gln Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg
 1   5   10   15
Ile Gln His Asn Ile Asp Tyr Leu Lys Arg Gly Asp
            20   25

<210> 15
<211> 18
<212> PRT
<213> peptide

<400> 15
Arg Gly Asp Ile Pro Ser Asp Phe Glu Gly Ser Gly Tyr Thr Asp Leu
 1   5   10   15
Gln Glu

<210> 16
<211> 25
<212> PRT
<213> peptide

<400> 16
Asp Ser Gln Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg
 1   5   10   15
Ile Gln His Asn Ile Asp Arg Gly Asp
            20   25

<210> 17
<211> 15
<212> PRT
<213> peptide

<400> 17
Arg Gly Asp Asp Phe Glu Gly Ser Gly Tyr Thr Asp Leu Gln Glu
 1   5   10   15

<210> 18
<211> 19
<212> PRT
<213> peptide

<400> 18
Asp Ser Gln Ala Gln Lys Ser Pro Val Lys Ser Lys Ser Thr His Arg
 1   5   10   15
Arg Gly Asp

<210> 19
<211> 12
<212> PRT
<213> peptide

<400> 19
Arg Gly Asp Gly Ser Gly Tyr Thr Asp Leu Gln Glu
 1   5   10

<210> 20
<211> 13
<212> PRT
<213> peptide

<400> 20
Asp Ser Gln Ala Gln Lys Ser Pro Val Lys Arg Gly Asp
 1   5   10

<210> 21
<211> 9
<212> PRT
<213> peptide

<400> 21
Arg Gly Asp Gly Tyr Thr Asp Leu Gln
 1   5

<210> 22
<211> 10
<212> PRT
<213> peptide

<400> 22
Asp Ser Gln Ala Gln Lys Ser Arg Gly Asp
 1   5   10

<210> 23
<211> 40
<212> PRT
<213> peptide

<400> 23
Arg Gly Asp Asn Asp Ile Ser Pro Phe Ser Gly Asp Gly Gln Pro Phe
 1   5   10   15
Lys Asp Ile Pro Gly Lys Gly Glu Ala Thr Gly Pro Asp Leu Glu Gly
            20   25   30
Lys Asp Ile Gln Thr Gly Phe Ala

35 40

<210> 24
<211> 40
<212> PRT
<213> peptide

<400> 24
Asn Asp Ile Arg Gly Asp Ser Pro Phe Ser Gly Asp Gly Gln Pro Phe
1 5 10 15
Lys Asp Ile Pro Gly Lys Gly Glu Ala Thr Gly Pro Asp Leu Glu Gly
20 25 30
Lys Asp Ile Gln Thr Gly Phe Ala
35 40

<210> 25
<211> 35
<212> PRT
<213> peptide

<400> 25
Asn Asp Ile Ser Pro Phe Arg Gly Asp Ser Gly Asp Gly Gln Pro Phe
1 5 10 15
Lys Asp Ile Pro Gly Lys Gly Glu Ala Thr Gly Pro Asp Leu Glu Gly
20 25 30
Lys Asp Ile
35

<210> 26
<211> 30
<212> PRT
<213> peptide

<400> 26
Asn Asp Ile Ser Pro Phe Ser Gly Asp Arg Gly Asp Gly Gln Pro Phe
1 5 10 15
Lys Asp Ile Pro Gly Lys Gly Glu Ala Thr Gly Pro Asp Leu
20 25 30

<210> 27
<211> 45
<212> PRT
<213> peptide

<400> 27
Phe Ser Gly Asp Gly Gln Pro Phe Lys Asp Ile Pro Gly Lys Gly Glu
1 5 10 15
Ala Thr Gly Pro Asp Leu Glu Gly Lys Asp Ile Gln Thr Gly Phe Ala
20 25 30
Gly Pro Ser Glu Ala Glu Ser Arg Gly Asp Thr His Leu
35 40 45

<210> 28
<211> 35
<212> PRT
<213> peptide

<400> 28

Ile Pro Gly Lys Gly Glu Ala Thr Gly Pro Asp Leu Glu Gly Lys Asp
1 5 10 15
Ile Gln Thr Gly Phe Ala Gly Pro Ser Glu Arg Gly Asp Ala Glu Ser
20 25 30
Thr His Leu
35

<210> 29
<211> 30
<212> PRT
<213> peptide

<400> 29
Glu Ala Thr Gly Pro Asp Leu Glu Gly Lys Asp Ile Gln Thr Gly Phe
1 5 10 15
Ala Gly Arg Gly Asp Pro Ser Glu Ala Glu Ser Thr His Leu
20 25 30

<210> 30
<211> 33
<212> PRT
<213> peptide

<400> 30
Asn Asp Ile Ser Pro Phe Ser Gly Asp Gly Gln Pro Phe Lys Asp Arg
1 5 10 15
Gly Asp Ile Pro Gly Lys Gly Glu Ala Thr Gly Pro Asp Leu Glu Gly
20 25 30
Lys

<210> 31
<211> 33
<212> PRT
<213> peptide

<400> 31
Gly Lys Gly Glu Ala Thr Gly Pro Asp Leu Glu Gly Lys Asp Ile Arg
1 5 10 15
Gly Asp Gln Thr Gly Phe Ala Gly Pro Ser Glu Ala Glu Ser Thr His
20 25 30
Leu

<210> 32
<211> 40
<212> PRT
<213> peptide

<400> 32
Phe Ser Gly Asp Gly Gln Pro Phe Lys Asp Ile Pro Gly Lys Gly Glu
1 5 10 15
Ala Thr Gly Arg Gly Asp Pro Asp Leu Glu Gly Lys Asp Ile Gln Thr
20 25 30
Gly Phe Ala Gly Pro Ser Glu Ala
35 40

<210> 33

<211> 31
<212> PRT
<213> peptide

<400> 33
Asp Gly Gln Pro Phe Lys Asp Ile Pro Gly Lys Gly Glu Ala Thr Gly
 1   5   10   15
Arg Gly Asp Pro Asp Leu Glu Gly Lys Asp Ile Gln Thr Gly Phe
            20   25   30

<210> 34
<211> 25
<212> PRT
<213> peptide

<400> 34
Pro Phe Lys Asp Ile Pro Gly Lys Gly Glu Ala Thr Gly Arg Gly Asp
 1   5   10   15
Pro Asp Leu Glu Gly Lys Asp Ile Gln
            20   25

<210> 35
<211> 28
<212> PRT
<213> peptide

<400> 35
Asp Ile Pro Gly Lys Gly Glu Ala Thr Gly Arg Gly Asp Pro Asp Leu
 1   5   10   15
Glu Gly Lys Asp Ile Gln Thr Gly Phe Ala Gly Pro
            20   25

<210> 36
<211> 31
<212> PRT
<213> peptide

<400> 36
Asp Gly Gln Pro Phe Lys Asp Ile Pro Gly Lys Gly Glu Ala Thr Gly
 1   5   10   15
Arg Gly Asp Pro Asp Leu Glu Gly Lys Asp Ile Gln Thr Gly Phe
            20   25   30

<210> 37
<211> 28
<212> PRT
<213> peptide

<400> 37
Gly Lys Gly Glu Ala Thr Gly Arg Gly Asp Pro Asp Leu Glu Gly Lys
 1   5   10   15
Asp Ile Gln Thr Gly Phe Ala Gly Pro Ser Glu Ala
            20   25

<210> 38
<211> 19
<212> PRT
<213> peptide

<400> 38
Glu Ala Thr Gly Arg Gly Asp Pro Asp Leu Glu Gly Lys Asp Ile Gln
1 5 10 15
Thr Gly Phe

<210> 39
<211> 13
<212> PRT
<213> peptide

<400> 39
Glu Ala Thr Gly Arg Gly Asp Pro Asp Leu Glu Gly Lys
1 5 10

<210> 40
<211> 10
<212> PRT
<213> peptide

<400> 40
Glu Ala Thr Gly Arg Gly Asp Pro Asp Leu
1 5 10

<210> 41
<211> 4
<212> PRT
<213> peptide

<400> 41
Ser Gly Asp Gly
1

<210> 42
<211> 12
<212> PRT
<213> peptide

<400> 42
Asp Asn Asp Ile Ser Pro Phe Ser Gly Asp Gly Gln
1 5 10

<210> 43
<211> 12
<212> PRT
<213> peptide

<220>
<221> VARIANT
<222> (1)...(12)
<223> Xaa = Any Amino Acid

<400> 43
Asp Xaa Asp Xaa Ser Xaa Phe Xaa Gly Xaa Xaa Gln
1 5 10

<210> 44
<211> 15

<212> PRT
<213> peptide

<400> 44
Ile Pro Ser Asp Phe Glu Gly Ser Gly Tyr Thr Asp Leu Gln Glu
1 5 10 15

<210> 45
<211> 15
<212> PRT
<213> peptide

<400> 45
Asp Phe Glu Gly Ser Gly Tyr Thr Asp Leu Gln Glu Arg Gly Asp
1 5 10 15

<210> 46
<211> 15
<212> PRT
<213> peptide

<400> 46
Tyr Thr Asp Leu Gln Glu Arg Gly Asp Asn Asp Ile Ser Pro Phe
1 5 10 15

<210> 47
<211> 15
<212> PRT
<213> peptide

<400> 47
Glu Arg Gly Asp Asn Asp Ile Ser Pro Phe Ser Gly Asp Gly Gln
1 5 10 15

<210> 48
<211> 15
<212> PRT
<213> peptide

<400> 48
Asn Asp Ile Ser Pro Phe Ser Gly Asp Gly Gln Pro Phe Lys Asp
1 5 10 15

<210> 49
<211> 23
<212> PRT
<213> peptide

<400> 49
Thr Asp Leu Gln Glu Arg Gly Asp Asn Asp Ile Ser Pro Phe Ser Gly
1 5 10 15
Asp Gly Gln Pro Phe Lys Asp
20

<210> 50
<211> 4
<212> PRT
<213> peptide

<220>
<221> VARIANT
<222> (1)...(4)
<223> Xaa = Any Amino Acid

<400> 50
Ser Gly Xaa Gly
 1